

Process Sheet

SPLIT - 1

Customer	: CU-DAR001 Dart Helicopters Services		Drawing Name	: BRACKET ASSEMBLY		
Job Number	: 28829					
Estimate Number	: 10291					
P.O. Number	: N/A			Part Number	: D3183044	
This Issue	: 10/3/2006		S.O. No. : N/A	Drawing Number	: D3183 REV C1	
Prsht Rev.	: NC			Project Number	: N/A	
First Issue	: N/A		Type : MACHINED PARTS	Drawing Revision	: C1	
Previous Run	: 26042			Material	: N/A	
Written By	: <i>W</i>			Due Date	: 10/30/2006	
Checked & Approved By	: <i>KJ 06/10/03</i>			Qty:	8	
Comment	: Est Rev:Pick:A 04.02.18 New issue KJ/DS					

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :	
1.0	M174B2000X01500	17-4 SS Bar	
		Comment: Qty.: 0.4812 f(s)/Unit Total : 2.8873 f(s) Material: 17-4 SS Bar per AMS 5604/5643 (M17-4-B1.500x02.000) 1.0 f M14773 Identify for D3183-4 Batch: M19478 1.887f <i>JK</i> 06/10/25	
2.0	BAND SAW	BAND SAW	
		Comment: BAND SAW Cut blanks: (1.500" x 2.000") 5.500" long <i>JK 06/10/25</i>	
3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1	
		Comment: HAAS CNC VERTICAL MACHINING #1 1-Machine D3183-4 as per Folio FA322 and Dwg D3183 Identify as D3183-4 2-Deburr 3-Scribe batch number	
4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE	
		Comment: INSPECT PARTS AS THEY COME OFF MACHINE <i>SD/JL 06/11/03 8</i>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

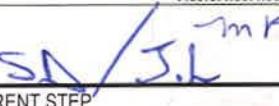
Part No: D3183-044 PAR #: NA Fault Category: Prod / Machined Parts NCR: Yes No DQA: DS Date: 07.01.03
 QA: N/C Closed: DS Date: 07.01.03

NCR: 28829		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06/11/03	3	1 part flew out of jig. corners on blanks have to much of a radius on them can't hold properly	<u>DS</u> QS1042	- Scarp + replace - destroy - Face the 2 sides to square them off as necessary.	J.L 06/11/03	<u>DS</u> 07.11.03	<u>DS</u> QS1042	<u>DS</u> 06.11.03

NOTE: Date & initial all entries

Date: Tuesday, 10/3/2006 2:50:03 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services		Drawing Name: BRACKET ASSEMBLY
Job Number: 28829		Part Number: D3183044
Job Number: 		
Seq. #:	Machine Or Operation:	Description :
5.0	QC8	SECOND CHECK 
Comment: SECOND CHECK		 9mL 06/11/03 8
6.0	D312121	Bolt 
Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)		
Pick:  Qty Part Number Description Batch 2 D3121-21 Bolt B28704 x10mx B29698 x6mx		
7.0	D3183045	Bearing Assembly 
Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)		
Pick:  Qty Part Number Description Batch 2 D3183-045 Bearing Ass B28836 x10 B30004 x6 B28837 x6mx		
8.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1 
Comment: SMALL & MEDIUM FAB RESOURCE 1 Assemble D3183-043 as per Dwg D3183.		mr. 08-01-05  06.11.01
9.0	QC5	INSPECT WORK TO CURRENT STEP 
Comment: INSPECT WORK TO CURRENT STEP		AA07/01/29 ③
10.0	PACKAGING 1	PACKAGING RESOURCE #1 
Comment: PACKAGING RESOURCE #1 Identify and Stock Location: 41412		BB07/01/29 ③
11.0	QC21	FINAL INSPECTION/W/O RELEASE 
Comment: FINAL INSPECTION/W/O RELEASE		AA07/01/30 ③
Job Completion 		U 07-01-30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	28829
Description: Bracket	Part Number:	D3183-4
Inspection Dwg: D3183	Rev: C1	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	R.190	/			
R0.063	+/-0.010	R.063	/			
0.182	+/-0.010	.181	/			
0.070	+/-0.010	.074	/			
0.100	+/-0.010	.102	/			
Ø0.201 x 0.100	+/-0.010	Ø0.201 x 0.100	/			
0.182	+/-0.010	.181	/			
5.32	+/-0.030	5.322	/			
5.036	+/-0.010	5.036	/			
2.120	+/-0.010	2.120	/			
1.290	+/-0.010	1.188	/			
0.365	+/-0.010	.365	/			
0.218	+/-0.010	.215	/			
1.030	+/-0.010	1.028	/			
1.90	+/-0.030	1.887	/			
1.012	+/-0.010	1.012	/			
Ø0.201 x 0.100	+/-0.010	Ø0.201 x 0.100	/			
0.182	+/-0.010	.181	/			
0.786	+/-0.010	.782	/			
Ø0.392	+0.002/-0.000	Ø0.392	/			
R0.19	+/-0.030	R.19	/			
3.954	+/-0.010	3.955	/			
0.162	+/-0.010	.162	/			
R0.19	+/-0.030	R.19	/			
R0.25	+/-0.030	R.25	/			
4.26	+/-0.030	4.262	/			
2.800	+/-0.030	.2810	/			
Calculated dimension						
0.162	+/-0.010	.162	/			
0.615	+/-0.010	.615	/			
0.435	+/-0.010	.435	/			
0.200	+/-0.010	.201	/			
0.381	+/-0.010	.380	/			
0.032	+/-0.010	.032	/			

Measured by:	SD	Audited by:	J.F.	Prototype Approval:	N/A
Date:	06.11.01	Date:	06.11.01	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-044	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	04.06.15	Dimension 2.800 was 2.080; removed 1.155, 0.36 dimensions	KJ/JLM	
D	06.03.09	Dwg Rev update	KJ/JLM	

DARTCOPY ISSUED
03/03/01

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. C
		D3183	SHEET 1 OF 4
DATE	04.02.17	TITLE	SCALE 1:1

RELEASED
04.03.01

C1 ~~04.11.07~~ 0.830 WAS 0.850

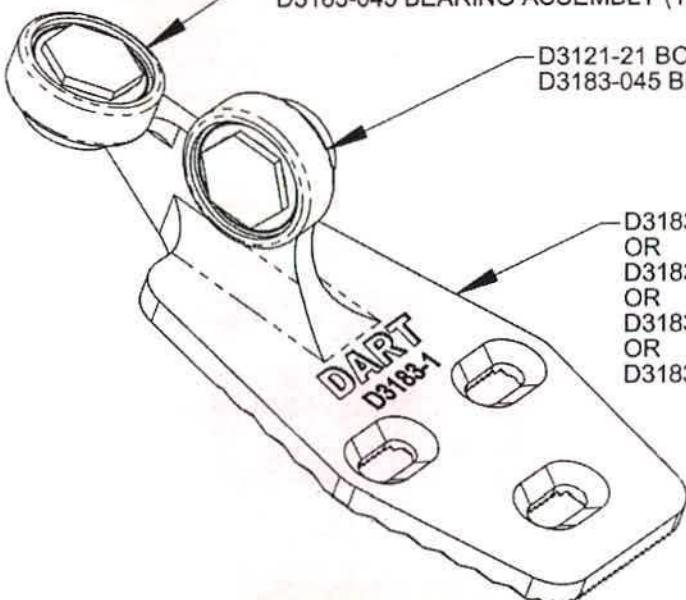
D3121-21 BOLT (1)

D3183-045 BEARING ASSEMBLY (1)

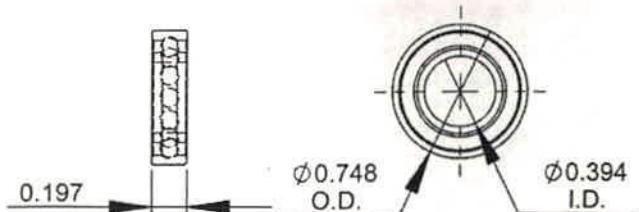
D3121-21 BOLT (1)

D3183-045 BEARING ASSEMBLY (1)

D3183-1 BRACKET FOR -041 (SHOWN)
 OR
 D3183-2 BRACKET FOR -042 (OPPOSITE)
 OR
 D3183-3 BRACKET FOR -043 (SIMILAR)
 OR
 D3183-4 BRACKET FOR -044 (SIMILAR)



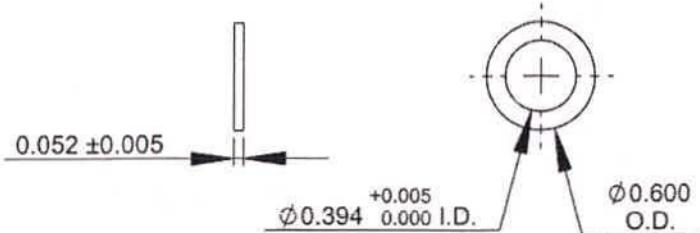
D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



**D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING**

- 1) SINGLE ROW, DEEP GROOVE SHOP COPY
CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ RETURN TO
ENGINEERING
- 3) ALL DIMENSIONS ARE IN INCHES

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WITHOUT NOTICE
WORK ORDER
NO. 28829



D3183-7 WASHER

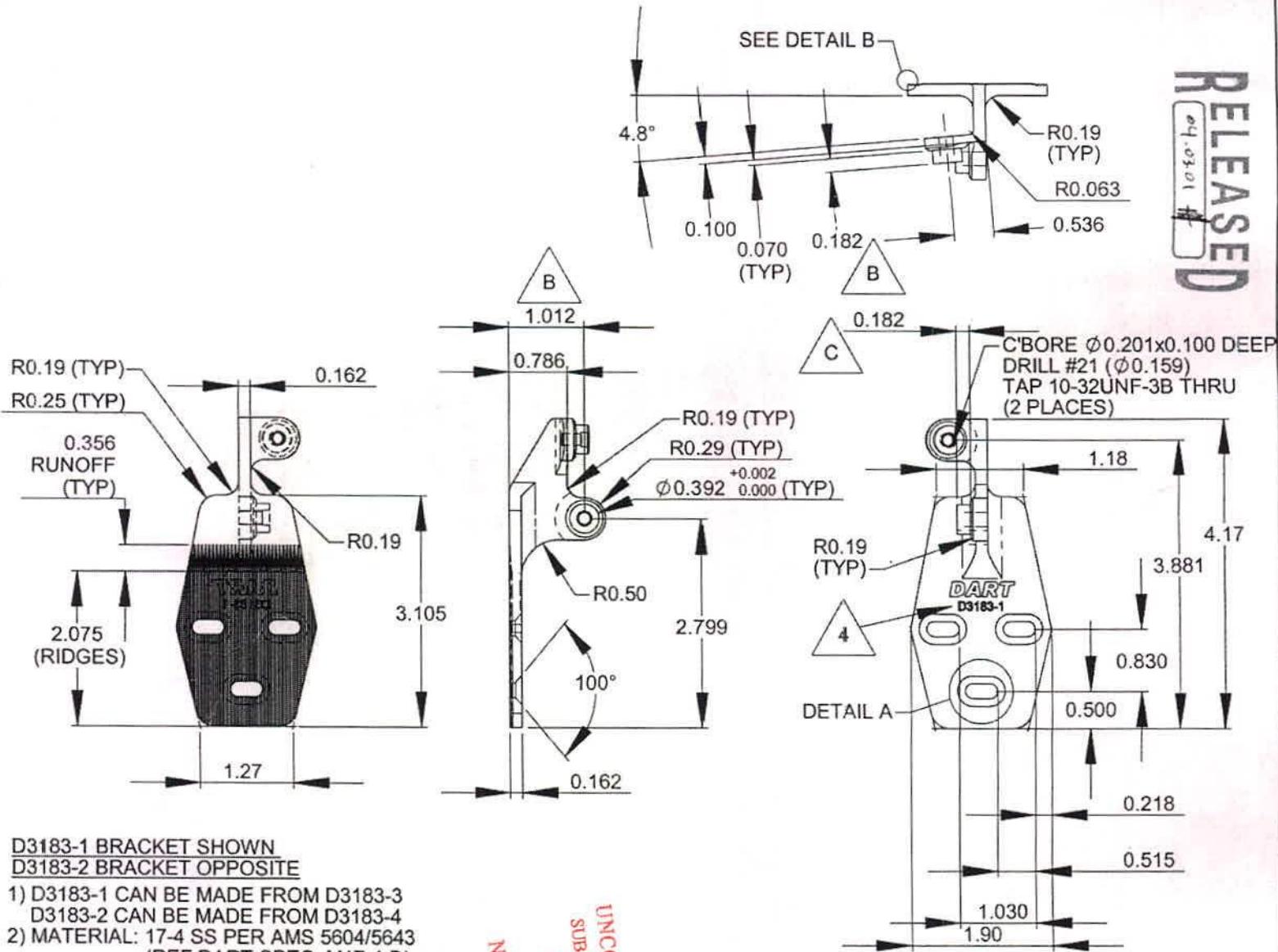
- 1) MATERIAL: AISI 303 ROUND BAR (M303R)
ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES



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WORK ORDER
NO. 28829

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		HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	REV. C	
		DRAWING NO.	SHEET 2 OF 4
DATE	04.02.17	TITLE	SCALE
		D3183	1:2
		BRACKET ASSEMBLY	

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DART

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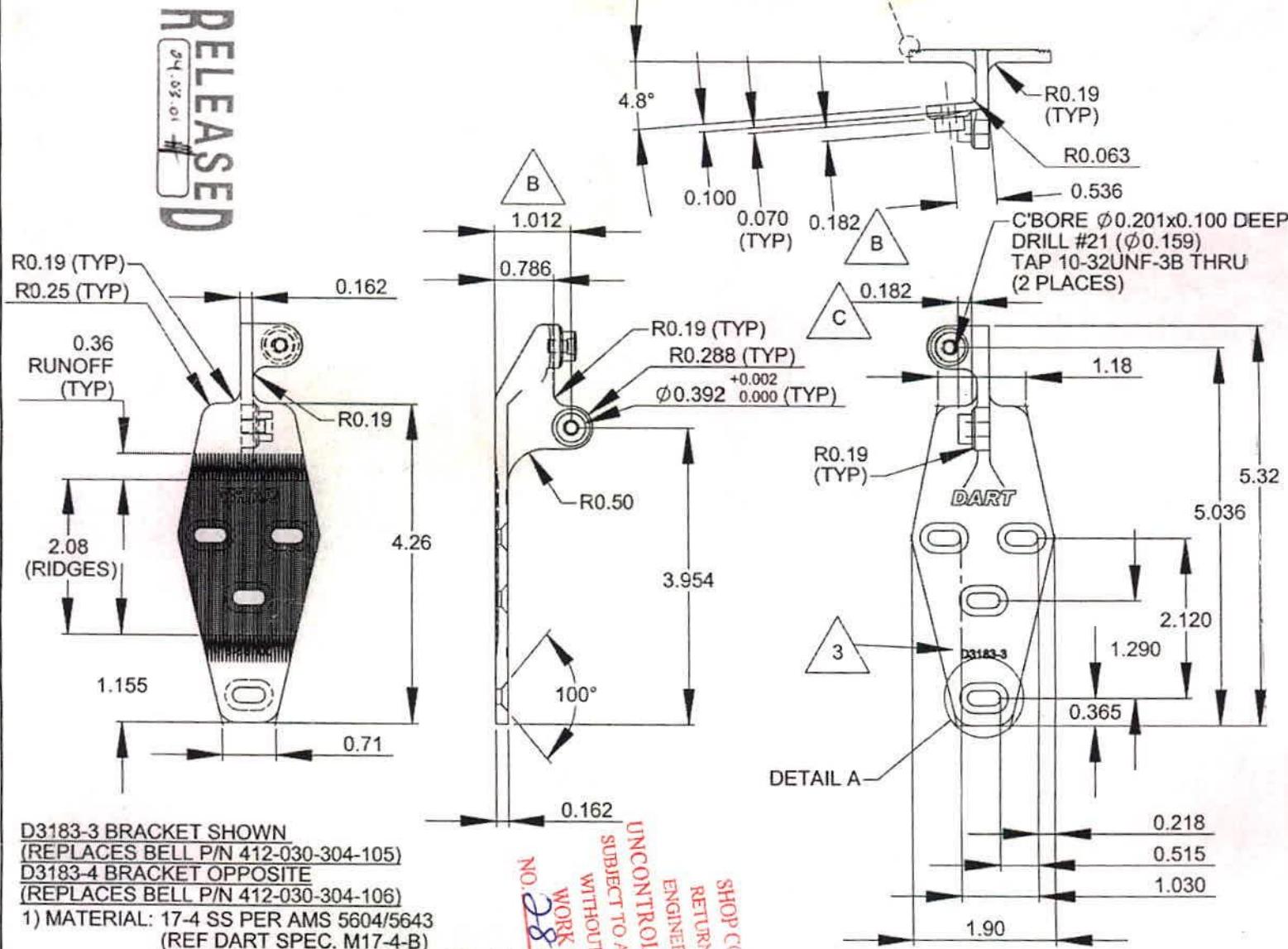
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D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)

**D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)**

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
2) BREAK ALL SHARP EDGES 0.005 TO 0.015
3) ENGRAVE DART P/N & LOGO AS SHOWN
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
5) ALL DIMENSIONS ARE IN INCHES

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WORK ORDERED
NO. 288291

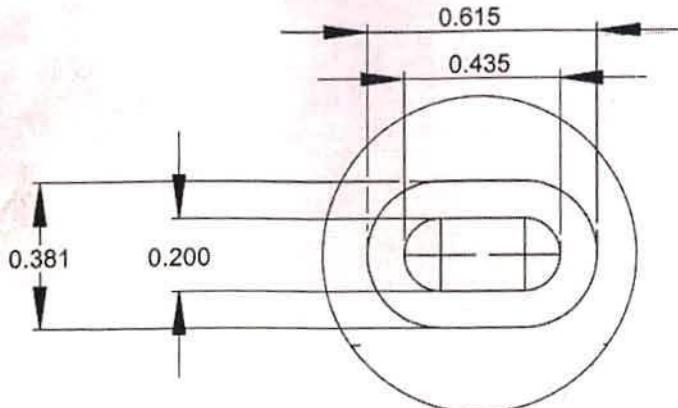


DESIGN 1	DRAWN BY <i>IP</i>	DART AEROSPACE LTD	
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CHECKED 1	APPROVED <i>IP</i>	DRAWING NO. D3183	REV. C
			SHEET 3 OF 4
DATE 04.02.17	TITLE BRACKET ASSEMBLY	SCALE 1:2	

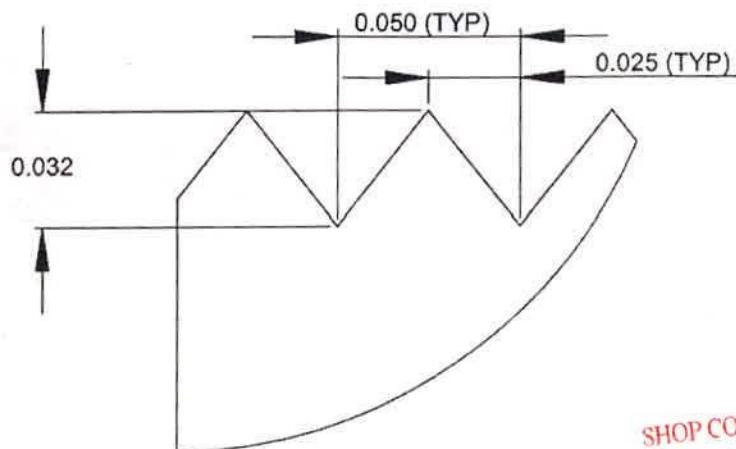
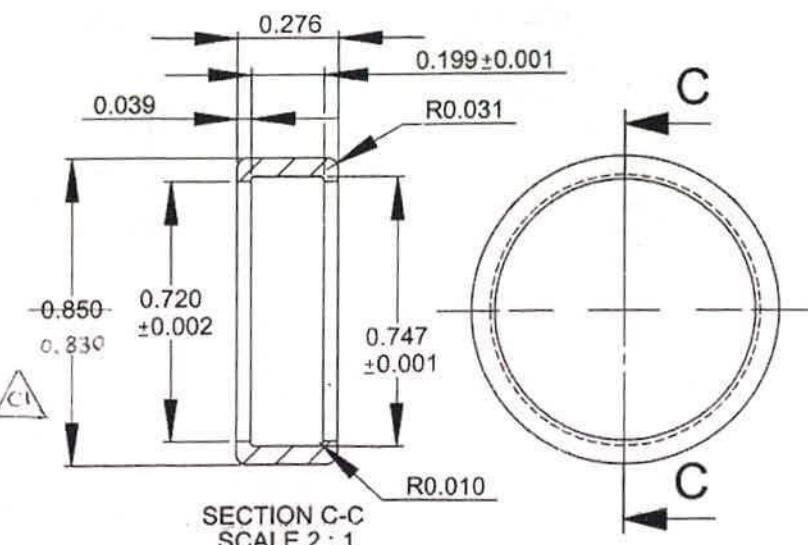
DART

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CHECKED	APPROVED	DRAWING NO.	REV. C
DATE	04.02.17	TITLE	SCALE

D3183
SHEET 4 OF 4
1:1

DETAIL A (2 : 1)

RELEASED
04.03.01

DETAIL B (20 : 1)SECTION C-C
SCALE 2 : 1

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WORK ORDER
NO. 28829

D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP